

## Things to Know, Understand and Do For Chapters 15 and 16: Acid/Base Chemistry

*By the end of Chapters 15 and 16 you should...*

<b>Know how to...</b>
List the general properties of acids and bases
Define what an acid and base are
Explain the process of a neutralization reaction
Describe the auto-ionization of water
Define pH, explain pH, and use the pH scale,
Given $[H^+]$ find pH, pOH or $[OH^-]$ , Given $[OH^-]$ find pH, pOH, or $[H^+]$
Explain how to perform an acid base titration
Calculate the molarity of an unknown solution from titration data
Define end point, equivalence point, and standard solution

<b>Understand...</b>
The difference between the difference between acids and bases
The difference between a strong and weak acid or base
That neutralization is just a proton combining with a hydroxide ion to make water
That hydronium ions and protons are the same thing
How pH, pOH, self-ionization, and $K_w$ all work
What indicators are, how they change color, and why they are useful
The difference between end point and equivalence point

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